

## REPLACING METHYL BROMIDE IN DEVELOPING COUNTRIES – GTZ APPROACH AND CASE STUDIES

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Under the Montreal Protocol, governments have agreed international reduction and phase out schedules for methyl bromide (with limited exemptions) for industrialized and developing countries.

Developing countries used about 15,350 – 17,500 tonnes of methyl bromide in 1996, accounting for about 22-26% of global use. Most of this (probably >70%) is used for soil treatments. MBTOC has noted that the alternatives to methyl bromide in developing countries are the same as those for industrialized countries, but their application may be constrained by factors such as social conditions and the level of infrastructure (MBTOC 1994).

The Montreal Protocol's Multilateral Fund provides technical and economic assistance for developing countries to phase out ozone depleting substances. The Protocol has allocated special funds for methyl bromide projects; during 1998 and 1999 the focus will be on evaluating and demonstrating alternative techniques. Guidelines outline the main types of projects eligible for funding (Table 1). In addition to demonstrations, these include projects to disseminate information, develop policy, carry out training and/or establish alternative systems. Projects are implemented in partnership with the governments of developing countries by UNDP, UNIDO, UNEP, the World Bank and development agencies of industrialized countries.

Many countries have drawn up plans for methyl bromide projects. By mid-1998 the Multilateral Fund had approved more than 50 methyl bromide projects in 39 countries, plus a number of global and regional projects. Additional projects were submitted in September 1998. More than 80% of the methyl bromide projects are demonstrations, primarily of alternatives in commercial use in other countries.

### GTZ Approach

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH implements technical co-operation with developing countries on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). Rapid phase-out of methyl bromide has been given high priority among its agricultural and environmental activities.

GTZ is working with partner countries to develop programs to introduce alternative systems that are environmentally sound and economically viable, meeting the long-

term needs of farmers, rural communities, purchasing companies and consumers. Projects may include the development of components such as:

- National plans and programs
- Regulatory measures, such as import controls or pesticide regulations relating to methyl bromide
- Awareness raising, information exchange and policy dialogue
- Demonstrations of alternatives
- Training programs for farmers and extension personnel
- Technical and financial support for farmers to adopt alternative systems
- Investment in companies supplying alternative products and services

GTZ's approach can be summarized as follows:

- Participatory process, fully involving farmers, extension personnel, researchers, agricultural organizations, NGOs and all other stakeholders
- Effective tools for project planning, implementation and review (ZOPP)
- Framework of national policy commitments and action plans
- Demonstrations, on-site training and learning-by-doing
- Focus on farmers, extension agents and farm-based activities
- Environmentally sound, economically viable, long-term solutions
- Building on existing infrastructures for agriculture and ozone protection
- Building up local expertise and capacity, so improvements will continue after projects have finished

### GTZ Agricultural Projects

GTZ has undertaken a variety of agricultural projects with developing country partners and agricultural agencies. Examples include:

- IPM projects in Argentina, China, Egypt, El Salvador, Ghana, Honduras, Jordan, Madagascar, Malawi, Mauritania, Morocco, Panama, Syria, Tanzania, Thailand.
- Pesticide projects in Brazil, China, Jamaica, Mozambique.
- Regional projects in biological plant protection for food crops in 26 countries in Africa: IPM for vegetables and fruit crops in 6 African countries; post-harvest protection in 4 countries in Africa; research and development projects on a variety of agricultural issues; and pesticide control and disposal services worldwide.

### Case Studies

Experience of implementing IPM programs in developing countries provides useful pointers for replacing methyl bromide. Several case studies will be discussed.

Table 1 - Summary of Montreal Protocol's Multilateral Fund guidelines on methyl bromide projects eligible for funding in 1998 and 1999 in developing countries

<b>Project Categories</b>	<b>Project activities</b>	<b>Eligible countries</b>
Non-investment	<ul style="list-style-type: none"> <li>◦ Disseminating information and educating stakeholders, via information programs, targeted workshops, training</li> <li>◦ Policy instruments to restrict methyl bromide imports and use</li> </ul>	<ul style="list-style-type: none"> <li>◦ Countries with increasing use of MB or new uses - to arrest growth in use</li> <li>◦ Countries which traditionally use MB</li> <li>◦ Countries using little or no methyl bromide - to prevent new use</li> </ul>
Demonstration	<ul style="list-style-type: none"> <li>◦ Demonstrating alternatives proven effective elsewhere</li> <li>◦ For priority crops: flowers, tobacco, tomatoes, cucurbits and strawberries (in open fields, greenhouses, nurseries or seedbeds), and crops/uses where MB is increasing</li> </ul>	<ul style="list-style-type: none"> <li>◦ Countries which have ratified the Copenhagen Amendment and</li> <li>◦ Countries with increasing use of MB or new uses - to arrest growth in use</li> <li>◦ Countries which traditionally use MB</li> </ul>
Investment	<ul style="list-style-type: none"> <li>◦ Adopting commercial alternatives to methyl bromide by transferring existing technology and know-how for priority crops/uses listed above</li> <li>◦ Projects are expected to be accompanied by policy measures to eliminate MB use (eg. bans and import licensing)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Countries which have ratified the Copenhagen Amendment and</li> <li>◦ Countries with increasing use of MB or new uses - to arrest growth in use</li> <li>◦ Countries which traditionally use MB</li> </ul>

NB. Some project submissions may include components of all three categories. Quarantine and pre-shipment uses are not eligible for projects because these uses are not controlled under the Montreal Protocol.  
The Copenhagen Amendment is a Protocol agreement made in 1992.